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IS 5100 (1969): Twist Drills, Parallel Shanks, Stub Series
for Right hand Cutting [PGD 32: Cutting tools]

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Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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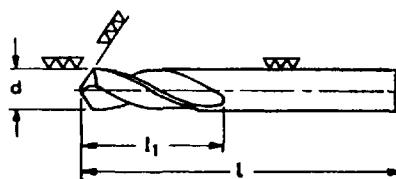


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Indian Standard REAFFIRMED
**SPECIFICATION FOR TWIST DRILLS, PARALLEL SHANKS, 2007
STUB SERIES FOR RIGHT HAND CUTTING**

1. Scope — Dimensions and requirements for parallel shank twist drills of stub series for right hand cutting

2. Dimensions



All dimensions in millimetres

d h8	Range of Diameters d		l_1	l	d h8	Range of Diameters d		l_1	l
	Over	Up to and Including				Over	Up to and Including		
—	0.19	0.30	1.5		3.80	3.75	4.25	22.0	55
—	0.30	0.38	2.0	19	4.00				
—	0.38	0.48	2.5		4.20				
0.50	0.48	0.53	3.0	20	4.50	4.25	4.75	24.0	58
—	0.53	0.60	3.5		4.80				
—	0.60	0.67	4.0	21	5.00				
—	0.67	0.75	4.5		5.20	4.75	5.30	26.0	62
0.80	0.75	0.85	5.0	22	5.50				
—	0.85	0.95	5.5		5.80				
1.00	0.95	1.06	6.0	23	6.00				
—	1.06	1.18	7.0		6.20	6.00	6.70	28.0	66
1.20	1.18	1.32	8.0	24	6.50				
1.50	1.32	1.50	9.0		6.80				
—	1.50	1.70	10.0	25	7.00				
1.80	1.70	1.90	11.0		7.20				
2.00	1.90	2.12	12.0	26	7.50	6.70	7.50	34.0	74
2.20	2.12	2.36	13.0		7.80				
2.50	2.36	2.65	14.0	27	8.00				
2.80	2.65	3.00	16.0		8.20				
3.00				34	8.50	7.50	8.50	37.0	79
—					8.80				
3.20	3.00	3.35	18.0	36	9.00				
3.50	3.35	3.75	20.0	38	9.20				
					9.50	8.50	9.50	40.0	84
					9.80				
					10.00				
					10.20				
					10.50				
					10.80				
					11.00				
					11.20				
					11.50				
					11.80				

(Continued)

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IS : 5100 - 1969

d h8	Range of Diameters d		l_1	l	d h8	Range of Diameters d		l_1	l
	Over	Up to and Including				Over	Up to and Including		
12.00					23.75				
12.20					24.00				
12.50	11.80	13.20	51.0	102	24.25	23.60	25.00	75.0	151
12.80					24.50				
13.00					24.75				
13.20					25.00				
13.50					25.25				
13.80					25.50				
14.00					25.75				
14.25					26.00	25.00	26.50	78.0	156
14.50					26.25				
14.75	14.00	15.00	56.0	111	26.50				
15.00					26.75				
15.25					27.00				
15.50					27.25	26.50	28.00	81.0	162
15.75					27.50				
16.00					27.75				
16.25					28.00				
16.50					28.25				
16.75					28.50				
17.00					28.75				
17.25					29.00				
17.50					29.25				
17.75					29.50				
18.00					29.75				
18.25					30.00				
18.50					30.25				
18.75					30.50				
19.00					30.75				
19.25					31.00				
19.50	19.00	20.00	66.0	131	31.25				
19.75					31.50	31.50	33.50	90.0	180
20.00					32.00				
20.25					32.50				
20.50					33.00				
20.75					33.50				
21.00					34.00				
21.25					34.50				
21.50					35.00				
21.75	21.20	22.40	68.0	136	35.50				
22.00					36.00				
22.25					36.50				
22.50					37.00	35.50	37.50	93.0	186
22.75					37.50				
23.00					38.00				
23.25					38.50				
23.50	22.40	23.60	72.0	146	39.00	37.50	40.00	100.0	200
					39.50				
					40.00				

3. Designation — A stub series twist drill with 5.00 mm diameter of 'tool type' N conforming to this standard and made from high speed steel (HS) shall be designated as:

Twist Drill 5.00 IS : 5100 HS.

3.1 When required with other 'tool types', H or S should be added after size as appropriate.

4. Tolerances — The flute length l_1 and overall length l may vary between the corresponding lengths specified for the preceding and the following ranges of diameters d .

Example.

The flute length for 5.00 mm diameter may vary between the values 24 and 28 mm from a specified value of 26 mm

NOTES

- 1 In case of range of diameters over 0.19 to 0.3 mm the tolerances on '*h*' shall be ± 0.5 mm and for the range of diameters over 0.19 to 0.48 mm the tolerances on '*l*' shall be ± 1 mm.
- 2 In case of range of diameters over 37.5 mm to 40 mm, the tolerances on '*h*' shall be ± 4 mm and the tolerance on '*l*' shall be ± 7 mm.

5. General Requirements

- 5.1 'Tool type'**, unless otherwise specified: *N* according to IS : 5099-1983*.
- 5.2** The detailed dimensions of the point and the cutting angles shall be at the discretion of the manufacturer (see also IS : 5099-1983* for recommendations regarding 'tool types').
- 5.3** The diameter *d* shall be measured as near the point as possible.
- 5.4** The flute length, overall length and tolerances for intermediate diameters shall be selected from the relevant range of diameters.
- 5.5** Other requirements according to IS : 5099-1983*.

6. Tests — According to IS : 5099-1983*.

E X P L A N A T O R Y N O T E

This standard was based on ISO /R 235-1961 which has been reviewed by ISO and found technically suitable for transformation into ISO 235/I-1975. Recently this Indian Standard has also been reviewed and found to be technically identical with ISO 235/I-1975 'Parallel shank twist drills, jobber and stub series, Morse taper shank twist drills and core drills' issued by the International Organization for Standardization.

*Technical supply conditions for twist drills